Claims

1. A method for combining a back-up aid function with park assist function in a motor vehicle, comprising the steps of:

determining a distance from a motor vehicle to an object;

determining a velocity of the motor vehicle;

subtracting a scaled version of the velocity and a minimum distance threshold from the distance to provide a first multiplicand; and

providing a driver stimulus as a function of the first multiplicand.

2. The method of claim 1, wherein the scaled version of the velocity is the product of a time-to-collision threshold multiplied by the velocity.

3. The method of claim 1, wherein the scaled version of the velocity is the product of an estimated driver reaction time multiplied by the velocity.

4. The method of claim 1, wherein the driver stimulus is an auditory stimulus.

5. The method of claim 1, wherein the velocity of the motor vehicle is provided by a wheel speed sensor.

6. The method of claim 1, wherein the distance from the motor vehicle to the object is determined from signals provided by a radar sensor.

7. The method of claim 1, further including the steps of:

multiplying the first multiplicand by a proportionality constant.

8. An automotive system including a back-up aid with parking assist, the system comprising:

a processor;

a sensor coupled to the processor; and

a memory subsystem coupled to the processor, the memory subsystem storing code that when executed by the processor causes the processor to perform the steps of:

determining a distance from a motor vehicle to an object based upon output provided by the sensor;

determining a velocity of the motor vehicle;

subtracting a scaled version of the velocity and a minimum distance threshold from the distance to provide a first multiplicand; and

providing a driver stimulus as a function of the first multiplicand.

9. The system of claim 8, wherein the scaled version of the velocity is the product of a time-to-collision threshold multiplied by the velocity.

10. The system of claim 8, wherein the scaled version of the velocity is the product of an estimated driver reaction time multiplied by the velocity.

11. The system of claim 8, wherein the driver stimulus is an auditory stimulus.

12. The system of claim 8, wherein the velocity of the motor vehicle is provided by a wheel speed sensor.

13. The system of claim 8, wherein the sensor is a radar sensor.

14. The system of claim 8, wherein the code when executed by the processor causes the processor to perform the additional step of:

multiplying the first multiplicand by a proportionality constant.

15. An automotive system including a human-machine interface that provides a back-up aid with parking assist, the system comprising:

a processor;

a sensor coupled to the processor; and

a memory subsystem coupled to the processor, the memory subsystem storing code that when executed by the processor causes the processor to perform the steps of:

determining a distance from a motor vehicle to an object based upon output provided by the sensor;

determining a velocity of the motor vehicle;

subtracting a scaled version of the velocity and a minimum distance threshold from the distance to provide a first multiplicand;

multiplying the first multiplicand by a proportionality constant; and

providing a driver stimulus as a function of the product of the first multiplicand and the proportionality constant.

16. The system of claim 15, wherein the scaled version of the velocity is the product of a time-to-collision threshold multiplied by the velocity.

17. The system of claim 15, wherein the scaled version of the velocity is the product of an estimated driver reaction time multiplied by the velocity.

18. The system of claim 15, wherein the driver stimulus is an auditory stimulus.

19. The system of claim 15, wherein the velocity of the motor vehicle is provided by a wheel speed sensor.

20. The system of claim 15, wherein the sensor is a radar sensor.